

# State and Private Forestry Fact Sheet Hawaii 2025



## **Investment in State's Cooperative Programs**

Program	FY 2024 Final
Community Forests and Open Space	\$0
Cooperative Lands - Forest Health Management	\$463,000
Forest Legacy	\$0
Forest Stewardship	\$117,356
Landscape Scale Restoration	\$0
State Fire Assistance	\$1,730,331
Urban and Community Forestry	\$1,006,805
Volunteer Fire Assistance	\$317,800
Total	\$3,635,292

NOTE: This funding is for all entities within the state, not just the State Forester's office.

The mission of the Division of Forestry and Wildlife (DOFAW) of the Hawaii Department of Land and Natural Resources (DLNR) is to protect, manage, and restore natural and cultural resources in collaboration with the people of Hawai'i. Cooperative forestry programs, administered and implemented through a partnership between the State of Hawaii, the U.S. Forest Service, and many other private and government entities help to fulfill DOFAW's mission. DOFAW and its partners work to protect and restore forests to enhance watershed functions, provide habitat for threatened and endangered species, mitigate wildfire threats, and support many other benefits for current and future generations. Additionally, Hawaii's Forest Action Plan (FAP) provides nine priority issues, including: 1) Water Quality and Quantity; 2) Forest Health: Invasive Species, Insects, and Disease; 3) Wildfire; 4) Urban and Community Forestry; 5) Climate Change and Sea Level Rise; 6) Conservation of Native Biodiversity; 7) Hunting, Nature Based Recreation and Tourism; 8) Forest Products and Carbon Sequestration; and 9) U.S. Tropical Island State and Territorial Issues. Consistent with Hawaii's FAP, reversing the trend of natural resource loss by increasing watershed protection, invasive species prevention and control, and restoration of native species has been identified as a target to be achieved by 2030 in the Aloha+ Challenge, a statewide commitment crossing jurisdictions, agencies, sectors, and communities to sustain resources. DOFAW, which manages a quarter of the land in Hawaii, continues to work with partners to enhance the resilience of the State's wildland and urban forests so they are capable of providing the public benefits and ecosystem services upon which our islands depend. Ultimately, forests play a large role in the health of Hawaii's economy, residents, and visitors.

## **Program Goals**

- Protect and maintain healthy forested uplands and functioning watersheds for the array of ecosystem services that are imperative for an island geography, particularly water recharge but also for cultural heritage which is unique to the region.
- · Preserve, enhance, and restore habitat necessary to sustain native species and ecosystems.
- Reduce the negative impacts of wildfires on native ecosystems, forests, and watersheds as well as communities and the threatened rare habitats near them.
- Enhance awareness of threats posed by invasive species and continue to collaborate with partners throughout the State and the Pacific islands region to prevent the spread of invasive species.
- Improve the health and viability of urban forests through educational programs, technical and financial assistance, and public/private partnerships.
- Promote sustainable forest management to generate responsibly sourced forest products, grow the
  wood industry, create green jobs, and utilize fiber found across the islands. The program seeks to
  expand the trade and use of sustainably sourced high-value hardwoods (and invasive woods) and
  support societal needs with renewable resources grown in Hawaii. DOFAW promotes the sustainable
  use of non-timber forest products for cultural and local uses which are integrated into the economy of

Hawaii.

- Support teachers in environmental education, offer youth internships, provide volunteer opportunities, and support green jobs.
- Provide technical and financial assistance to landowners and long-term leaseholders of privately managed forests to improve management on-the-ground.
- Protect lands through strategic acquisitions and develop conservation easements that will preserve and restore forested areas important for ecological, cultural, or community values.
- Maintain public trails and access roads and other unique assets that are needed for recreation, cultural heritage, economic, or research purposes.

## **Key Issues**

- Hawaii suffered one of the worst fires in US history in 2023 and remains focused on ensuring nothing
  of this sort occurs again. Fire-tolerant invasive grasses, drought, land use, and population trends
  continue to be concerns for the Fire Management Program. Enhancing DOFAW's capacity to
  maintain and expand climate-resilient landscapes, support fire-adapted communities, and respond to
  wildfires will depend largely on its ability to secure funds and strengthen collaborative partnerships.
- Climate change poses threats to Hawaii's forests. It also creates opportunities for adaptation and
  resilience through tools that support natural lands' role in carbon sequestration. Predictions of warmer
  and drier conditions will contribute to declining freshwater supplies and increase the risk of extinction.
  Nearly a third of the nation's listed species are found in Hawaii, with habitats limited by temperature
  gradients; as areas warm, species habitats may be lost as new threats emerge.
- The sustainable yield of freshwater depends on the protection of forested watersheds throughout the State and continues to be a priority for programs within the Division of Forestry and Wildlife. The State of Hawaii has committed to protection of 30% of highest priority watersheds by 2030.
- Preventing and responding to new invasive species that threaten forests in Hawaii, while effectively
  managing widely established pest species through Integrated Pest Management.
- Respond to the detection of new fungus killing on of Hawaii's most important forest tree species, ohia, which makes up 50% of all of the forests in Hawaii. The disease, locally referred to Rapid Ohia Death, has affected an estimated 135,000 acres and threatens forest statewide. DOFAW is coordinating with other state, federal, and county agencies to effectively respond to this new disease threat

#### Forest Facts and Accomplishments

Selected Facts	Value
Population	1,455,271
Acres of Forest Land	1,808,280
Acres of Nonindustrial Private Forest Land	366,000
Number of NIPF Landowners	1,782
Acres of Federal Land Under State Fire Protection	0
Acres of Private Land Under State Fire Protection	2,300,000
Number of Rural Fire Departments	4
Cities and Towns	5
Forest Based Employment	926
Economic Impact of Forestry (by rank)	19
State Forestry Budget (All Sources)	53,865,282

FY 2024 Accomplishments	Value
Landowners Receiving Educational or Technical Assistance	40
Acres Covered by New or Revised Forest Stewardship Plans	9,283
Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	5,170
Volunteer Fire Departments Assisted	0
State Fire Communities Assisted	0
Coop Forest Health Acres Protected	0
Forest Legacy Project Acquisitions	0
Communities Provided Urban Forestry Program Assistance	168
Population Living in Communities Provided Urban Forestry Program Assistance	1,432,513
Urban Forestry Volunteer Assistance	15,255

## **Program Highlights**

#### Conservation Education

In 2024 the Information & Education Section coordinated and implemented a statewide education and outreach program related to the work of Forestry and Wildlife. One of our major initiatives was a statewide campaign for Makahiki o Na Manu Nahele (the Year of the Forest Birds). Endorsed by the Governor, the campaign partners (including but not limited to our DLNR staff) engaged an estimated 47,480 people at forest bird events in 2024 resulting in a 58% increase in pageviews to the section of our website dedicated to information on birds. We coordinated a network of partners in creating new educational materials and distributed classroom posters and stickers directly to educators. Our Oahu team expanded our volunteer program from focusing primarily on the Kamananui educational forest to multiple sites across Oahu, providing a nearby service option for schools and communities regardless of their location. The team also released new videos focused on the cultural applications of forest materials. We also released a series of animated public service announcements featuring our mascot, Pono the Nene, to demonstrate responsible ways of engaging with nature while hiking and how to reduce the risk of wildfire or negative impacts on wildlife. We participated in a wide range of community events and festivals to provide educational information, including the Symphony of Hawai'i Forests, Manu o Ku Festival, Science and Sustainability Festival, Schools of the Future Conference, and more. We estimate that in 2024 we engaged around 45,000 at 219 events relating to forestry, ecosystems, wildlife, and other topics. The educational section of our website received 25,400 views in 2024.

## **Cooperative Fire Protection**

The 2024 fire season in Hawaii saw normal wildland fire incidence, statewide DOFAW firefighters responded to seven fires across the state for a total of 2,252 acres.

On the island of Oahu, 28 miles of fuel breaks were maintained and DOFAW Oahu responded to two fires totaling 34 acres.

On Kauai, 19.5 miles of fuel break were maintained in high-risk areas on the west side the island. DOFAW Kauai responded to four fires totaling 1,623 acres.

On Hawaii Island, 189.15 miles of fuel break were maintained in high-risk areas of the island. On Maui, 22 acres of fuel reduction actions were performed and DOFAW Maui responded to one 595 acre fire.

Statewide there was a large uptick in the number of communities seeking FireWise status with Hawaii Wildfire Management Organization (HWMO), there are now 14 additional FireWise Communities for a total of 30 across the state. Five new CWPP plans and two Community Wildfire Protection Plans (CWPPs) updates were funded by the Community Wildfire Defense Grant Program, and one statewide implementation project was funded to collect and propagate plant materials for shaded fuel break and post-fire recovery projects.

#### **Economic Action**

Wood innovation grants have supported several partners who are exploring ways to improve processing, drying, and utilization and expand Hawaii's wood economy. The partners are working with DOFAW in formal and informal ways to explore the use of mature stands of Eucalyptus and Yellow Pine that are abundant on the islands. In addition, efforts to better market and develop a future supply of well-formed and disease resistant Koa continue as we explore the market for higher-value hardwoods.

## Forest Health Protection

Rapid Ohia Death (ROD) continues to be a high priority for natural resource managers in Hawaii. The disease is caused by two recently described fungi in the Ceratocystis genus and threatens Hawaii's most important native tree species, Metrosideros polymorpha. Project priorities in 2024 were survey and response, diagnostics, research and public outreach. Research efforts include determining how the pathogen spreads, the role of ambrosia beetles and feral ungulates, genetic fingerprinting to track disease spread, remote sensing for disease detection, the efficacy of treatments (e.g., felling and tarping), and developing disease-resistant ohia for restoration. To date, the aggressive form of the disease, C. lukuohia, has only been found on Hawaii and Kauai islands.

Over the past decade, the Division of Forestry and Wildlife (DOFAW) has worked with the Hawaii Agriculture Research Center (HARC) to develop disease-resistant koa trees (Acacia koa) for both commercial plantation and forest restoration. The fungal pathogen, Fusarium oxysporum f. sp. koae,

causes a wilt disease in koa that can cause widespread tree mortality, especially at lower elevations. Screening for koa families for disease resistance by ecoregion has been conducted by HARC, and orchards have been established throughout the state to provide seed to DOFAW and private landowners. DOFAW and HARC collaborated on seed collections from statewide networks of wilt-resistant orchards in 2024. Over 38 pounds of seed were collected (one pound = approximately 5,000 seeds). This included over 9 pounds of seed from the orchard at the Kapapala Canoe Management Area located on the southern slopes of Maua Loa, Hawaii Islands. Some of the dozen families planted at this site in 2012 show a strong potential for both disease resistance and growth form. However, a number of the original seed sources are no longer available, therefore, collecting from those families is important for this prime koa growing region.

## Forest Legacy

The purpose of the Hawaii Forest Legacy Program is to identify environmentally important forestlands and to protect them from conversion to non-forest uses. In doing so, the program facilitates the conservation and preservation of forest product resources, watersheds, wildlife, scenic enjoyment, recreation, cultural and native species resources, and other ecologically important values. DOFAW supports acquisition through the program for conservation purposes and/or sustainable management of forests with the support of land trust/non-profit partners. Specific Forest Legacy projects in Hawaii include assisting the Office of Hawaiian Affairs with the Wao Kele O Puna Forest Reserve (Hawaii Island); holding conservation easements at Kealakekua Heritage Ranch and Kaawaloa Forest (Hawaii Island); addition of Helemano Wilderness Area (Oahu – 2,882 acres fee title) and Kamehamenui Forest (Maui – 3,434 acres fee title) to the state Forest Reserve System; providing monitoring support for U.S. Forest Service conservation easement projects in South Kona (Hawaii Island); and developing community-based, multi-resource management plans for recently acquired parcels such as Kamehamenui Forest. Due diligence for other pending program acquisitions is underway including; Hana Highway Coastal Rainforest (Maui - 395 acres fee title) and two projects on Oahu (Kaneohe Pali - 948 acres fee title and Maunawili Forest - 672 acres fee title).

#### Forest Stewardship

The Forest Stewardship Program (FSP) enables private landowners or long-term leaseholders to restore, conserve, and responsibly manage important forest resources that provide vital public and private socioeconomic and environmental benefits. The majority of Hawaii's forests, 66% or 1,155,000 acres of Hawaii's 1,748,000 acres of forestland, is privately owned or managed. Through the FSP, the State recognizes that public-private partnerships are essential to the health of Hawaii's forests and to the public benefits that they provide. Since the program began in 1990, approximately 77 private landowners have enrolled in the FSP and are conducting forest management activities on over 44,000 acres under agreements spanning 10 or more years. The program provides cost-share assistance for the development of FSP management plans and FSP management plan implementation over the 10-year period. In Hawaii, the FSP has leveraged over \$16 million in state and private funding to support provided by U.S. Forest Service through the Cooperative Forestry Act over the last thirty years. The Division, with the assistance of the State's Forest Stewardship Advisory Committee, updated the FSP handbook for landowners to assist them with forest management planning. The Division assisted over 40 landowners and community groups in the past year, providing them with technical guidance on responsible stewardship of their forest resources. Participants in the FSP would not have been able to pursue their sustainable and often innovative land-use objectives without the technical and financial assistance made available through this program. With recent cross-sector initiatives, such as the commitment to freshwater security, watershed protection, carbon neutrality, biosecurity, invasive species control, and native species restoration, the program continues to remain relevant through sustainable forest management actions and partnerships.

#### Landscape Scale Restoration

Protecting Kauai's Core Watershed from Invasive Species. The project aims to stop the cross-boundary spread of 3 priority invasive weeds (ginger, Australian Tree Fern, and strawberry guava) across Kauai's core watershed. These three invasive plants are considered the most destructive habitat modifiers, and if they spread uncontrollably, they can alter ecosystem function, including reducing water recharge. The area also serves as the primary source of drinking water for Kauai. The project utilizes high-resolution aerial mapping to detect invasive weeds across a large landscape, informing control operations to halt invasion by the 3 priority weeds into new areas.

Cross-Boundary Response: Mitigating Invasive Species in Hawaii's Rural Landscapes. This project protects forest health by eradicating high-impact invasive plants from priority landscapes on two islands. The 14 selected species are high-impact forest invaders, like kudzu and cotoneaster. This project mitigates the impacts of invasive plants across high-priority conservation landscapes on the islands of Kauai and Hawaii, by removing invasive plants in the early stages of invasion. Early detection and rapid response (EDRR) efforts prevent new forest invaders from becoming established in high-value conservation landscapes before they degrade water recharge, outcompete native plants, and degrade wildlife habitat.

Napuu Conservation: Protecting and Reforesting the Threatened Montane Dry Forests of North Kona. This project is helping conserve and reforest 2700 acres of high priority native-dominated Tropical Dry Montane forest in an important watershed for N. Kona, on Hawaii Island. The project will 1) protect 2700 acres through feral ungulate management and wildfire pre-suppression, 2) restore degraded land through weed control & tree planting, 3) bank seeds for post-fire rehabilitation and 4) foster cross-boundary communication through knowledge and data sharing with neighboring landowners and managers.

## Revegetation and Nursery Strategy

A highlight this year has been the development of an initial plan to support Hawaii's tree nurseries and efforts to more fully support their needs given their role in achieving land management goals. Nurseries are critical for revegetation of common native and rare species, and for natural climate solutions. In addition, they are the central repository for seed collecting, a source of public education, and a flagship for resilience. A report commissioned with USFS funds has brought attention to the need to build internal capacity and coordination around this topic. Implementation will continue in 2025 and beyond with additional training, system development, and updating where needed and as funds allow.

### **Urban and Community Forestry**

This year's work of the Kaulunani Urban and Community Forestry (UCF) program is characterized by the robust, multiyear projects funded through federal funding and by state funds allocated by the legislature. Six competitive subawards were established to fund work on urban forest management planning, community canopy expansion, native plant distribution, and accessible agroforestry. Two staff were hired for the Community Coconut Program and a Campus Forester was hired for the Shade Trees for Schools Program within Kaulunani. Staff members have made progress on program objectives, including supporting the re-establishment of a historic coconut grove, visiting 10 Oahu public schools and presenting at 9 events.

In FY2024, the state legislature and the Division of Forestry and Wildlife recognized the importance of UCF in Hawaii and allocated \$1.2M to support new projects – nearly 8 times the annual state contribution of years prior. These projects include seven competitive subaward projects that were highly ranked but unfunded by federal funds. It also includes support for traditional carving workshops and Native Hawaiian Hardwood stakeholder meetings with cultural practitioners. These educational and outreach components are integral to a Native Hawaiian Hardwoods project (funded by the US Forest Service to Oahu DOFAW branch) that will grow stands of native Hawaiian hardwood species for cultural practices. Kaulunani will build on the momentum of these contributions through targeted and general outreach supported by state funds.

# **Contact Information**



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